

ABSTRACT

A carbon fiber spun yarn, which is a spun yarn of a carbon fiber that has an average (002)-interlayer spacing of 0.340 - 0.380 nm as measured by X-ray diffraction method, has a specific gravity of 1.55 - 5 1.80 as measured by a density gradient tube method, a hydrogen-to carbon atomic ratio (H/C) as measured by elementary analysis of at most 0.1 and contains 3 - 30 wt.% of carbon fiber having a fiber length of at least 150 mm, wherein the spun yarn has a weight per 1000 m (tex) of 30 - 150 g, a number of primary twist of 50 - 400 turns/m and a 10 tensile strength of at least 0.15 N/tex. The carbon fiber spun yarn may be woven to provide a carbon fiber woven fabric suitable as a gas diffuser (electroconductive substrate) of a solid polymer electrolyte fuel cell.